



GLSS Solo Challenger

*The Official Newsletter of the Great Lakes Singlehanded Society
June 2019 – Ken Verhaeren(verhaerk@aol.com) editor*

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From The Helm



As I write this I am getting ready for our cornerstone event that started this wonderful organization, the Solo Mackinac Challenge. Since that first sail up to the island by the foundering members of Great Lakes Singlehanded Society, the club has grown to 332 lifetime members and 60 active dues paying members with an average of 7 new members per year. This year we have 28 participants for the Chicago to Mackinac Island Challenge with 8 of those being first time challengers. The Port Huron to Mackinac Island Challenge has 15 participants. Additionally, we have 12 sailors registered for the Lake Erie Solo Challenge, 9 registered for the Lake Ontario 300 and 11 registered for the Trans Superior Solo. This makes for an exciting year for solo sailing on the Great Lakes. For more information about challenges this year, including race tracking and results, follow the links in the Upcoming Events section below.

We have a new apparel and merchandise web store where you can buy GLSS branded items for yourself or your favorite sailor. You can find the store at the following url, <https://glss.highwindsgraphix.com/>

Peace,
Joey Baker
GLSS President

AND SO IT BEGINS THE 2019 GLSS SEASON

It was announced that the 2020 AGM will be held in Cleveland Ohio. Vice President Rob Burger is heading the committee planning the event.

Upcoming Events

- 06/22/2019 – [Mackinac Solo Challenges](#)
- 07/13/2019 – [Lake Ontario Solo Challenge](#)
- 08/03/2019 – [Trans Superior Solo Challenge](#)
- 08/17/2019 – [Lake Erie Solo Challenge](#)
- 08/23/2019 – [Lake Michigan Solo Scramble](#)
- 09/07/2019 – [Lower Lake Huron Solo Challenge](#)
- 09/28/2019 – [St Clair Solo Challenge](#)

REMEMBER - Each on of the Challenges will be tracked for your enjoyment. You will find the tracking information on the GLSS site.

The following article come from the PRACTICAL SAILOR newsletter. If you are not a current subscriber you might want to subscribe or try to find a copy of it at your local library. KV

Ten Tips to Prolong the Life of Your Alternator

Posted by Darrell Nicholson at 06:30AM - Comments: (12)

April 18, 2018

The alternator belt on this Yanmar is easily inspected and adjusted, as needed.

So I was thinking about Bitcoin today, the digital crypto-currency that seems no less cryptic than what's in my wallet these days, and this got me thinking about giant stone money on the island of Yap, and because I spent most of my time on Yap rebuilding an alternator, this got me thinking about alternator belts. Before you fire up ye ol' iron genny for the season's first smoke-belching run out to the mooring, to the dock, or to the fuel station (I sure hope it's not to the pumpout station), you, too, might want to think about your alternator belt.

Many of the following tips are culled from editor-at-large Nick Nicholson's Offshore Log report on alternator care, written during his circumnavigation. For a more in-depth discussion of alternators, refer to Nigel Calder's Boatowner's Mechanical and Electrical Manual, which covers the topic in good detail.

Check belt for excessive wear. Compare the belt width and depth with your spare belt (you have one of these, right?). When the engine area around the belt is coated with black dust, the belt is probably slipping or misaligned. Small-case, high-output alternators get very, very hot. There must be a constant, high-volume flow of clean cooling air through the alternator, if it is to last a long time. Black dust is like an insulator around your alternator. Paint can have the same effect: Don't paint an unpainted alternator; it wasn't meant to look pretty.

Obviously, you must have the right size and type of V-belt. Look for A-series industrial belts, available from most auto parts stores. A quirk of these belts is that the belt number is not identical to the belt length: an A41 belt, for example, is 43 inches long.

Check belt alignment. The belt must be properly aligned with the engine and alternator pulleys. Do not assume that the pulleys are aligned, even if you have a factory-installed alternator. A misaligned belt will often chirp—as opposed to a squeal or screech for a slipping belt. You can carry out a basic alignment check using a straight edge placed across the pulley faces. If the belt walks up one side of the pulley while the engine is running, misalignment is often the cause.

Check pulleys for corrosion and proper operation. The pulley should not wobble on its axis. If the pulley-end bearings have failed (listen for distinct rumbling or roughness as you spin the unloaded alternator), check alignment carefully after replacing the bearings, as this may have contributed to the failure.

Proper belt tension is an equally important issue. The correct belt tension depends on the pulley arrangement on the individual engine, as well as the type of accessories driven by the belt. A belt that is too tight can cause problems, but loose belts are more common. A loose belt will both reduce output and contribute to overheating. Again, check for black dust. If there is a significant amount of dust on your engine or alternator, the belt is too loose, the pulleys are misaligned, or you have the wrong belt size.

Many engines send their RPM through the alternator, so if your RPM needle jumping around erratically, you could have a slipping belt.

A properly tensioned belt should not deflect more than 5/16 of an inch when pressed with your finger. The Kriket V-belt tension gauge is handy for more accurate tension checks.

A Gates Kriket V-Tension Gauge is a handy tool to have on board for checking belt tension. It is easy to use, and the instruction sheet gives belt tension guidelines for a variety of pulley and accessory combinations. You can find them at most auto parts stores (it's part # KR-1 at NAPA auto parts).

The engine compartment must be kept clean. A lot of air gets sucked through an alternator. If your engine runs dirty, that dirt will find its way into the alternator, coating the windings and other components. Wipe the engine down regularly with a light solvent, and clean the alternator case and fan as well.

Make sure the alternator gets plenty of airflow. This may mean increasing engine compartment venting. A beautifully insulated engine compartment that reduces noise is very efficient at keeping the heat inside.

New belts tend to stretch during the first several times you run your engine. After replacing the belt, allow a run-in period of about 10 minutes and check tension again. Continue to monitor tension closely after belt replacement, and make it a part of your normal pre-ignition check to manually test belt deflection by applying pressure with your finger. If the belt deflects more than 5/16-inches, pull out the Kriket and re-adjust belt tension. If the belt is properly tensioned, sized, and aligned and black dust is still a problem, you may have to adjust the regulator to reduce the load on your engine—this applies primarily to high-output alternators.

10. After your final adjustments, make sure your alternator mounting bolts—at the bracket and at the alternator—are tightened down. Some manufacturers give torque for the bracket numbers, 70 to 80 foot-pounds or thereabouts.

Bottom line: By paying a bit of attention to your alternator belt before the season begins, you can save yourself some big Bitcoin down the road.

Comments (11)

If your alternator is not the main charging source, that is you have a generator or plenty of other main charging like solar, consider using a regulator that is set for battery float. At float voltage the alternator will never overcharge the batteries during long motoring.

If a battery is fully charged, when resting, at ~12.8V, why is there a need for bulk charging at say 14.4V? While motoring, the batteries will have a long soak at ~13.7V float. It would seem that under the circumstance, there is no need for higher voltage bulk charging.

MASON COUNTY, Mich. (WPBN/WGTU) -- The Mason County Sheriff's Office is warning boaters to beware of a hazard created by high water levels in Lake Michigan.

The Mason County Sheriff's Office Marine Division posted pictures of a navigational hazard just north of the Ludington pier heads.

Deputies report the high water levels have caused land around Ludington to create a small island and are warning boaters to be careful when in the area.

GRAND TRAVERSE COUNTY, Mich. (WPBN/WGTU) -- According to the U.S. Army Corps of Engineers water levels in the great lakes are higher than they've been since the 1990s.

Wednesday night, the Michigan Sea Grant Extension held a discussion in Traverse City about the rising water.

"For people who have property on the shoreline or for public infrastructure on the shoreline, the risk of damage from erosion is much higher at high water levels. Erosion always happens but when water levels are high it's happening right where we are," said Lauren Fry, a lead forecaster for the U.S. Army Corps of Engineers.

According to Fry, all of the Great Lakes, except Lake Ontario, are expected to have above average water levels for at least the next six months. expected to have above average water levels for at least the next six months.

HIGH WATER CREATING CONCERNS ON THE LAKES

High water levels create boating hazard
by Roxanne Werly Monday, May 27th 2019

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This is an “island” of the entrance to Ludington and suddenly showed up. The USCG has broken it up but cautions boaters of

shallow water there and the possibility of other abnormal situations. It seems that this might have happened because of a marsh area being washed out into the lake.

There are also concerns in Leland. Water levels are so high that some docks are under water.

The lakes are very cold right now, Lake Michigan has readings of 39 degrees in the middle of the lake. Huron has similar reading on the north end of the lake. KAV

Cold Water Survival

The first few seconds can be the most dangerous.

When we read about a sailor lost overboard in the storm, we think about PFDs and personal locator beacons, and accept the sea is unforgiving. When we read of novice boaters drowning in a local lake, we're sad, but say that will not happen to us because we wear PFDs. But when we read of a PFD-equipped sailor falling overboard and dying within minutes it's a real eye-opener.

PS tech editor Drew Frye enjoys some light reading during drysuit testing.

Jon Santarelli fell overboard from a fully crewed TP 52 (fast ocean racing yacht) just a few miles the start of the 2018 Chicago Mackinac race. According to witnesses, he slid under the lifeline at the back of the cockpit, entering the water apparently uninjured, and then disappeared almost immediately.

His automatic inflatable PFD failed to deploy, but that alone does not explain why an experienced sailor and fit triathlon swimmer couldn't keep his head above water for more than seconds.

The danger is cold water shock. With the water temperature in the low 50s, true hypothermia would have taken more than 30 minutes. The inability to swim wouldn't have overtaken him for at least 20 minutes. However, 50 degrees is well below the accepted threshold of shock. Most likely, when the icy water slammed into his face it caused an involuntary gasp. It's hard to recover from inhaling water, even for a strong swimmer.

Originally known as sudden disappearance syndrome, cold water shock has been known since the 1970s. Different from true hypothermia, which results from the body core temperature dropping over a period of 20 minutes to hours, cold water shock is immediate. Being cast headfirst into icy water is one of most severe shocks a human can face, with deadly effects. It is estimated that 20 percent of victims die within 2 minutes.

Physical effects

The instantaneous reflex is a violent gasp, totally unlike the one scary movies strive to cause. This results in a massive inrush of air, which can be fatal if you are underwater. Unlike the controlled plunges of the local polar bear club, where participants walk in via a beach and are attended by rescue swimmers in dry suits, MOB sailors plunge in head first, the result of tripping over the lifeline. Even with an automatic vest, your head will plunge 6 feet underwater before popping to the surface. If the first blast of inhaled water doesn't drown you, you'll arrive on the surface gasping and unable to swim and swallowing more. Drowning will typically occur in less than a minute. The initial gasp is followed by several minutes of hyperventilation, making any physical effort nearly impossible. Consequences include the inability to hold your breath or think clearly.

Instantaneous and massive increases in heart rate and blood pressure can cause heart failure in otherwise healthy individuals. Clear thought is impossible. Panic is likely, only serving to increase problems with breathing control and heart rate.

These reactions may appear to an observer as nothing more than panic. Flailing, spastic breathing, muddled thinking, and a racing heart fit the pattern. But victims include experienced sailors and strong swimmers, like Jon Santarelli, who are not at all prone to panic. Had he fallen overboard in warm water and reasonable weather, his first concern might have been embarrassment over screwing up the race, and later whether the boat would be back in the next half or hour so. It wouldn't have felt life threatening.

If you survive the first critical seconds, then come the more traditional challenges of cold water exposure. Cold incapacitation and swimming failure begins in 5-20 minutes, the result of failed muscle control. In the absence of a PFD, drowning follows. Death from true hypothermia (cold core) takes considerably longer, at least 30 minutes in very cold water up to a few hours in cool water.

How do you keep this from happening to you? First, don't fall in. The first line of defense is careful movement and the use of harness and tether systems as described in PS October 2018. If sailing a smaller boat, prone to capsize or swamping, dress for full water immersion. In cool water either a thin wetsuit or dry suit is effective. Once the water temperature drops below about 50F, only a dry suit is suitable. (See PS November 2018 and March 2009.)

If performing high risk activities on larger boats (hiking out, working on the bow, or leaning outboard) a dry suit is the smart option. It is our favorite foul weather gear for stormy conditions in cool weather; more agile than heavy foul weather gear and nary a drop of water will go down your neck. Small wonder is increased in popularity with off-shore racers and sailors.

Unfortunately, once the air temperature gets above about 55F, dry suits get steamy, tempting the wearer to open the zipper and defeating the whole purpose. As the water temperature rises into the 50s, we like paddling jackets and dinghy smocks, with snug fitting wrist, neck, and waist seals. Water will sneak in pretty quickly, but shock is reduced and the seals reduce the exchange of cold water. The wearer is also more mobile than in conventional foul weather gear.

Soft shells may also have possibilities. Once our tester found himself in 35F water, with ice around the edges. He was dressed not in foul weather gear or dry suit, but in Wind Blocker fleece tops and bottoms. The saving factors were that the wrist, waist, ankle, and neck closures were all tightly secured; not all soft shells have effective closures. Although very cold, it was more survivable than ordinary foul weather gear.

Conclusions

The last 12 months have been hard on ocean racers. It is more than coincidence cool or cold water was a common factor. In the UK, coldwater shock is considered to be the root cause of most drowning, including non-boating accidents.

We like certain features of manual inflating PFDs; they don't go off inadvertently and climbing back aboard is easier. But cold water is different. Because of the high probability the wearer will be incapable of action for a minute or more, auto-inflation is the way to go.

We would like to see the makers of foul weather gear take a long hard look at what can be done to improve cold water shock resistance. Conventional jackets and soft shells could be fitted with effective internal neck seals. Wrist and waist seals could be upgraded.

We would like to see race committees post cold water warnings. It is common to require PFDs be worn above a certain wind speed. The race committee should at least recommend that protective gear such as a wet suit or drysuit be worn if the water temperature is below about 55 F. Our level of caution around the rail varies with the risk we perceive, and that level of caution goes way up when the water temperatures go down. Most importantly, sailors need understand what being thrown face first into cold water feels like and how their body will respond to it. A diehard for traditional foul weather gear? Don't fall off the boat in cold water, and don't expect to survive more than a few minutes if you do. It's tough out there.

Tracking for the 2019 Solo Mac Challenge

Looking for the Solo Mac Tracking page?

On June 22nd go to the following links to track the boats as they make their way up to the island.

[2019 Chicago to Mackinac Island Challenge - Tracking Link](#)

[2019 Port Huron to Mackinac Island Challenge - Tracking Link](#)

Join the fun and follow your favorite sailors.